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U. S. DEPARTMENT OF TRANSPORTATION

NATIONAL SUMMARY REPORT ON THE FINDINGS AND RECOMMENDATIONS OF THE ACCIDENT DATA IMPROVEMENT PLAN

COMPLETED

ORIGINAL

Prepared By

OFFICE OF STATE PROGRAM ASSISTANCE
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

and

OFFICE OF HIGHWAY SAFETY
FEDERAL HIGHWAY ADMINISTRATION

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EXECUTIVE SUMMARY

The Accident Data Improvement Plan (ADIP) project was initiated by the National Highway Traffic Safety Administration (NHTSA) in cooperation with the Federal Highway Administration (FHWA) in the fall of 1978 to improve the content and quality of accident data required for analysis purposes. The basic concept was to determine what, if any, accident data deficiencies exist and to recommend improvements where appropriate.

In order to provide the framework for a uniform and comprehensive evaluation, NHTSA and FHWA convened a joint Task Force to determine the standards to be used as the basis of comparison and to develop uniform review criteria. The Task Force decided to survey each State's accident data system, identify problems, and recommend corrective actions. They determined that the types of data maintained by States had to be identified, and the processes, practices and policies affecting the quality of the data had to be reviewed.

Reviews were conducted in each of the States throughout 1979, 1980 and during the spring of 1981. Reports were provided to the individual States containing the findings and recommendations for improvement. The following conclusions result from an analysis of the information gathered through the review process for each of the 50 States, Puerto Rico, and the District of Columbia.

- Accident data is not collected uniformly within all States. Nearly all of the States have a statutory requirement for using uniform accident report forms within the State to obtain uniform accident data statewide. In practice, however, a uniform accident report form is used by all jurisdictions in only two-thirds of the States.

- State and national accident statistics compiled from State furnished information are incomplete. All jurisdictions report accidents in only about one-half of the States and only one-third of the States believe that all accidents are reported. All fatalities are believed to be reported in most States; however, just slightly more than one-half believe all personal injury accidents are reported.

- Most accident data are available for analysis within 2-months from the accident occurrence. A reporting time is set by State law in most States, and most State and local agencies submit reports witnin 30 days. A majority of the States are generally able (have the resources) to enter accident data into the automated file within 60 days or less of the accident.

- Nationally, the States use non-uniform reporting criteria. Fatality counting rules and property damage thresholds vary from State to State. About one-half of the States include nontraffic accidents within their files. Also about one-half of the States include the motorist's report in their automated file. Not all States use a uniform definition of the accident classification or of the injury classification.

- The data elements and file linkage available for accident analysis vary significantly among the States. The number of significant data elements collected and automated ranged from 42 to 88 percent. About one-half of the States were missing nearly one-third of the elements. Software was available to accomplish linkage between the accident file and at least one of the other traffic records system files in only about one-half of the States.

- Most States reasonably strive for accurate reporting; however, routine feedback needed to improve accuracy is missing in the majority of the States. Both State and local police officer reports are checked manually and by computer for accuracy and consistency in most States. Feedback is routinely provided to the State reporting agency in less than one-half of the States and to the local reporting agency in one-third of the States.

- Adequate accident investigation training is not provided for State and local officers in most States if compared to the 52-hour minimum recommended by the International Association of Chiefs of Police. About one-half of the States provide the recommended minimum to State officers and only six States (12 percent) provide the recommended minimum to local police officers.

- User access is provided through a central point in most States; however, additional effort needs to be expended by some States to establish procedures to supply reports routinely to local units of government. All States respond to requests for accident data from local units of government; however, about one-third of the States do not supply this information routinely.

The ADIP study was successful in providing a national overview of the status of the States' accident records systems, and most important, in generating individual State recommendations for improvement of the quality and content of accident data. Over one-half of the States have taken action to implement at least some of the ADIP recommendations.

INTRODUCTION

The Accident Data Improvement Plan (ADIP) project was initiated by the National Highway Traffic Safety Administration (NHTSA) in cooperation with the Federal Highway Administration (FHWA) in the fall of 1978 to improve the content and quality of accident data required for analysis purposes. The basic concept was to determine what, if any, accident data deficiencies exist and to recommend improvements where appropriate.

Accident data is the focal point of the various record systems which must be accessed to identify the highway safety problems of a State. The management approach to highway safety program development embraces the concept of implementing countermeasures directed at specific problems identified through scientific analytical procedures. The results of any analytical process are only as valid and credible as the data used in the analysis. This has become especially apparent to data users at the State level as attempts to implement problem identification concepts have been frustrated by deficiencies and inadequacies in the accident record systems. Other activities have tended to confirm that accident data, in general, needs improvement.

During the winter of 1975, FHWA issued a notice to all field offices to review the status of each State's Traffic Records System (TRS) to determine how the data was collected, stored, maintained and accessed; how it was used, by whom and for what purpose; and if data retrieval capability existed to allow meaningful analysis. Each review produced individual recommendations for improvement; but of equal importance, each review provided both Federal and State safety managers an overview of their system's strengths and weaknesses.

In carrying out routine tasks, NHTSA traffic records specialists often examine State accident files for technical and programmatic sufficiency. This scrutiny has revealed limitations in terms of data available to support problem identification. Also, attempts by NHTSA researchers to find data to substantiate claims of vehicle defects and hazardous conditions of safety related equipment often have been defeated by lack of data. Issues such as alcohol involvement and occupant restraint usage are other areas where the data are incomplete.

Both agencies agreed to conduct a thorough and systematic look at the problem.

METHODOLOGY

In order to provide the framework for a uniform and comprehensive evaluation, NHTSA and FHWA convened a joint Task Force to determine the standards to be used as the basis of comparison and to develop uniform review criteria. The Task Force decided to survey each State's accident data system, identify problems, and recommend corrective actions. They determined that the types of data maintained by States had to be identified, and the processes, practices and policies affecting the quality of the data had to be reviewed.

The American National Standards Institute (ANSI) D-20.1, Data Element Dictionary was selected as the primary source document which describes accident related data elements. The Task Force circulated a list of standard data elements to knowledgeable NHTSA and FHWA staff and requested they note which elements were most needed for highway safety planning and analysis purposes. The Task Force used this information to determine a basic list of significant elements which should be included in a State's system (Exhibit I). The list also included 6 elements critical to NHTSA's national research program.

A standard questionnaire was developed to determine the characteristics of State data files (Exhibit II). The questionnaire was designed to solicit information about the various aspects of accident records which affect their overall quality; i.e., uniformity, completeness, timeliness, content, accuracy, accident investigation training and data accessibility.

In looking at uniformity, the questionnaire sought to document each State's use of a uniform report form; i.e., whether all data is reported to the State's central collection point on the same form. Other factors affecting national uniformity were also addressed, such as definition of a fatality, classification standards used, and acceptance of operator provided reports. Completeness of reporting was concerned with the cooperation by local police agencies in submitting reports for all accidents in their jurisdictions. Questions about timeliness of reporting were directed at the amount of time taken for a report to be put onto the automated file after an accident occurred. Data content was examined to determine general adequacy as well as comparability to standards in ANSI D-16.1 Classification of Motor Vehicle Traffic Accidents, and ANSI D-20.1, Data Element Dictionary. Accuracy of reporting was reviewed to determine the types of checks and safeguards being applied to assure accurate reporting and reduce human error. The amount of accident investigation training provided to law enforcement personnel was reviewed because of its obvious significant effect on the quality of accident data; questions were directed to ascertain comparability to the minimum training recommended by the International Association of Chiefs of Police (IACP). Finally, the questionnaire documented types of support provided to users.

An individual State workbook was assembled for each of the 50 States, Puerto Rico and the District of Columbia, hereinafter referred to as the "States". Each workbook contained the review criteria/questionnaire, D-20 data element list, the State police report form, computer file layout, 1976 FHWA TRS review, Highway Safety Plan (HSP) review, Fatal Accident Reporting System (FARS) quality control report and other information related to the State's data system.

The methodology was tested and refined. The Task Force then provided training to the NHTSA and FHWA field offices on the purpose of the ADIP study and methodology to be employed in conducting the review. To develop the individual State recommendations, information was obtained about the State's accident records system through a combination of documentation review and on-site interviews of personnel involved in accident

records processing and related activities. The documentation review consisted primarily of a comparison of the accident data maintained by the State on its traffic accident report form and in its computer files against the then current version of the ANSI D-20 Data Dictionary.

It was emphasized that conformance with the D-20 Dictionary was not the objective of the review. It was used as the standard since it is the only document of national scope which can be readily referenced and it is the product of the collective work of many State and local data professionals around the country. Only where a State came up short in comparison to the "significant" set of data elements was a recommendation made for the inclusion of missing elements.

Reviews were conducted in each of the States throughout 1979, 1980, and during the spring of 1981. Reports were provided to the individual States containing the findings and recommendations for improvement. The national summary which follows was compiled from the 52 reports. Since some of the State reports were written two years ago, some numerical totals expressed in this report may not reflect current status.

FINDINGS AND CONCLUSIONS

UNIFORM COLLECTION OF DATA

Each State has the responsibility to determine the form or reporting vehicle to be used by police agencies to report accident data. There is no standard national uniform accident report form. Each State has developed its own; generally collecting similar information. Uniform data should be obtained statewide so it can be entered into the State's traffic record system and will provide a uniform base for statewide analysis.

- 88 percent of the States (46) reported a State agency is responsible by statute or regulation for obtaining statewide uniform accident data. Twenty-five percent of the States (13) have a penalty for non-compliance; however, it is not enforced.

- 65 percent of the States (34) reported that a uniform report form is used by all jurisdictions. In the 18 States reporting the use of a non-uniform accident form, 10 did not report or did not know the percent of accidents reported on the non-uniform form. In the other 8 States the range of accidents reported on non-uniform forms ranged from 1 to 100 percent of the accident report file.

Conclusion:

Accident data is not collected uniformly within all States. Nearly all of the States have a statutory requirement for using uniform accident report forms within the State to obtain uniform accident data statewide. In practice, however, a uniform accident report form is used by all jurisdictions in only two-thirds of the States.

COMPLETE REPORTING OF ACCIDENTS

Complete reporting statewide should be obtained of those accidents required to be reported so that an accurate assessment of accident problems can be made.

- 48 percent of the States (24) reported that all of the local police jurisdictions report accidents. In the remaining 26 States (two States have no local reporting agencies), 5 reported unknown or it was not addressed, and 21 reported a range of 0.1 percent to 12 percent of the local jurisdictions did not report. In some States, only fatalities are reported on Indian reservations, Park Service and other Federal Agency roads.

- 92 percent of the States (48) reported that all fatals are reported; however, only 81 percent of the States (42) reported procedures were established to assure this was done.

- 56 percent of the States (29) reported that all personal injury accidents are reported; 10 of the States reported unknown or a clear response was not provided.

- 35 percent of the States (18) reported that all accidents are reported; in 10 of the States the percent of accidents reported is unknown or was not clearly stated; in the remaining 24 States the percent of unreported accidents ranged from 0.1 percent to about 23 percent.

Conclusion:

State and national accident statistics compiled from State furnished information are incomplete. All jurisdictions in only about one-half of the States report accidents and only one-third of the States believe that all accidents are reported. All fatalities are believed to be reported in most States; however, just slightly more than one-half believe all personal injury accidents are reported.

TIMELINESS OF DATA

In order for accident information to be useful for local and State highway safety managers, it must be processed in a timely manner. The time for processing includes the time from when the accident occurs until the data has been entered into the automated accident file.

- A reporting time is set by State law in at least 79 percent of the States (41). In 5 States the existence of a State law could not be determined from the ADIP report. The time ranged from 1 to 10 days for police and from 3 to 30 days for operators.

- The range of lapsed time for State reporting fell within 1 to 30 days in 94 percent of the States (49) and within 2 weeks for 71 percent of the States (37). One State has no State reporting agency.

- The range of lapsed time for local reporting fell within 1 to 30 days in 73 percent of the States (38) and within 2 weeks for 33 percent of the States (17). Two States have no local reporting agencies.

- The average elapsed time from the accident occurrence to entry on the system ranged from 12 to 360 days, with 37 percent of the States (19) averaging 30 days or less, and 73 percent (38) averaging 60 days or less.

Conclusion:

Most accident data is available for analysis within 2 months from the accident occurrence. A reporting time is set by State law in most States, and most State and local agencies submit reports within 30 days. A majority of the States are generally able (have the resources) to enter accident data into the automated file within 60 days or less of the accident.

UNIFORM REPORTING CRITERIA

The criteria or reporting threshold which defines a reportable accident and the composition of a State's accident report file is set individually by each State. As a practice all fatal accidents and personal injury accidents are reported as well as property damage accidents which exceed a specified threshold. The composition of the State's accident report file may include nontraffic (parking lot) accidents, and accident reports completed by police officers as well as reports completed by the involved motorists.

- Accident reporting thresholds are set by law or regulation in 51 States.

- The time period for including a death as attributable to a motor vehicle accident varies among the States; 48 percent (25) use 30 days, 29 percent (15) use 90 days, 2 percent (1) use 6 months, 19 percent (10) use 1 year, and 1 State did not report.

- Using ANSI D-16 as a standard, the accident classification by "First Harmful Event" was stated as in agreement in 67 percent of the States (35). The classification of "Injury Severity" was stated as in agreement in 73 percent of the States (38). In 4 States, the status of the accident classifications could not be determined from the ADIP reports.

- For property damage thresholds both towaway and dollar amounts are used. Towaway is used in 4 percent of the States (2). Ten different dollar amounts are used with a range of $0 to $500; 23 percent of the States (12) use between $0 and $150, 60 percent (31) use $200 to $300, and 13 percent (7) use $350 to $500.

- 46 percent of the States (24) include nontraffic (e.g., parking lot) accidents in their accident files. The percent of the file represented by these nontraffic accidents varies from 2 to 25 percent. Two-thirds (16) of the 24 States reported the percentage as "unknown."

- About one-half of the States include the motorist report in their automated file. Of the 27 States that use motorist reports, the percent of the automated file represented by these reports ranged from 1 to 100 percent; the percent was not stated in 4 States, 1 to 10 percent in 6 States, 12 to 25 percent in 11 States, and 26 to 100 percent in 5 States.

Conclusion:

Nationally, the States use non-uniform reporting criteria. Fatality counting rules and property damage thresholds vary from State to State. About one-half of the States include nontraffic accidents within their files. Also, about one-half of the States include the motorist's report in their automated file. Not all States use a uniform definition of the accident classification or of the injury classification.

FILE CONTENT AND LINKAGE

In order to identify problems and appropriate solutions, the highway safety manager must not only have sufficient data for a thorough analysis, but also a means of manipulating the data. The data content and analysis capability of the State's files have evolved to meet the recognized needs of the individual States. Data for accident analysis purposes is either collected on the accident report form or obtained through manual or automated linkage with related data files.

To evaluate the content of the State files, the ANSI D-20 Dictionary was used as a standard and selected data elements were designated as significant by the ADIP Task Force. The tables below show the number of States with provision for the availability of the elements for analysis purposes. The tables list the data elements in two classifications of priority: critical (6) and significant (112). The significant data elements are further broken down for ease of presentation into the categories of accident, roadway, vehicle, driver, occupant and non-occupant.

Six elements were classified as critical since they were needed at the national level to manage motor vehicle safety programs. Information on the makes, models, model years, and on-board safety equipment of accident involved vehicles would afford opportunities to assess the overrepresentation of certain vehicle types in all accidents as well as in injury producing accidents. Further, such data would enable more complete real-world evaluation of the effectiveness of occupant restraints and other safety features. Vehicle towaway information would assist in the determination of crash severity (independent of occupant injury outcome) which would enhance motor vehicle crashworthiness analyses and would serve as a uniform criterion for combining data from a number of States for analyses of national trends.

In practice some elements may not always be collected even when provided for on the accident report form, or may not be automated when collected.

- NHTSA listed 6 elements as critical for use in identifying motor vehicle problems of national significance. Only 4 States (8 percent) have all 6 elements collected and automated. Four States do not have any of the critical elements. Fifty-six percent of the States (29) are missing one-half or more of the critical elements.

CRITICAL NHTSA DATA ELEMENTS

ELEMENT	NUMBER OF STATES	PERCENT OF STATES 0 25 50 75 100
Safety Equipment Use	41	xxxxxxxxxxxxxxxxxxxxx
Vehicle Make	33	xxxxxxxxxxxxxxxx
Vehicle Ident. No. (VIN)	24	xxxxxxxxxxxx
Vehicle Model	23	xxxxxxxxxxxx
Fire Involvement	20	xxxxxxxxxx
Vehicle Removal (Towaway)	20	xxxxxxxxxx

- 27 accident data elements were considered significant. Only 2 States (4 percent) have all the elements collected and automated. The number of missing (or not automated) data elements in the remaining States ranged from 1 to 12. About one-half of the States (27) were missing 5 or more of the accident data elements.

ACCIDENT DATA ELEMENTS

ELEMENT	NUMBER OF STATES	PERCENT OF STATES 0 25 50 75 100
Case Number	52	xxxxxxxxxxxxxxxxxxxxxxxxxxxx
Accident Year	52	xxxxxxxxxxxxxxxxxxxxxxxxxxxx
Accident Month	52	xxxxxxxxxxxxxxxxxxxxxxxxxxxx
Hour	52	xxxxxxxxxxxxxxxxxxxxxxxxxxxx
Day of Week	52	xxxxxxxxxxxxxxxxxxxxxxxxxxxx
Total Accident Fatalities	52	xxxxxxxxxxxxxxxxxxxxxxxxxxxx
Total Accident Injuries	52	xxxxxxxxxxxxxxxxxxxxxxxxxxxx
Light	51	xxxxxxxxxxxxxxxxxxxxxxxxxxx
Accident Severity	51	xxxxxxxxxxxxxxxxxxxxxxxxxxx
County	50	xxxxxxxxxxxxxxxxxxxxxxxxxxx
Weather	50	xxxxxxxxxxxxxxxxxxxxxxxxxxx
Accident Day	50	xxxxxxxxxxxxxxxxxxxxxxxxxxx
Harmful Event	49	xxxxxxxxxxxxxxxxxxxxxxxxx
City-Place	48	xxxxxxxxxxxxxxxxxxxxxxxxx
Investigating Agency	47	xxxxxxxxxxxxxxxxxxxxxxxxx
Contributing Circum-Driver	44	xxxxxxxxxxxxxxxxxxxxxxx
Contributing Circum-Vehicle	41	xxxxxxxxxxxxxxxxxxxxx
Harmful Event Location	40	xxxxxxxxxxxxxxxxxxxx
Contributing Circum-Environ	40	xxxxxxxxxxxxxxxxxxxx
Contributing Circum-Non-Occ	40	xxxxxxxxxxxxxxxxxxxx
Contributing Circum-Road	39	xxxxxxxxxxxxxxxxxxx
Number of Non-Occupant	39	xxxxxxxxxxxxxxxxxxx
Contributing Circum-Occupant	19	xxxxxxxxxx
Time Police Notified	18	xxxxxxxxx
Time Police Arrived	16	xxxxxxxx
Time Emergency Arrived	12	xxxxxx
Time Emergency Notified	6	xxx

- 32 roadway data elements were considered significant. Only 1 State had all the elements collected and automated for all public roads. The number of missing (or not automated) data elements in the remaining States ranged from 3 to 27. Twenty-five (48 percent) of the States were missing one-half (16) or more of the roadway data elements.

ROADWAY DATA ELEMENTS

ELEMENT	NUMBER OF STATES	PERCENT OF STATES 0 25 50 75 100
Surface Condition	50	xxxxxxxxxxxxxxxxxxxxxxxxxx
Road Identification	49	xxxxxxxxxxxxxxxxxxxxxxxxx
Road Number	47	xxxxxxxxxxxxxxxxxxxxxxxx
Traffic Control Device Type	46	xxxxxxxxxxxxxxxxxxxxxxxx
Urban-Rural	46	xxxxxxxxxxxxxxxxxxxxxxxx
Milepoint	44	xxxxxxxxxxxxxxxxxxxxxxx
Surface Type	41	xxxxxxxxxxxxxxxxxxxxx
Lighting	40	xxxxxxxxxxxxxxxxxxxx
Road Dnsnbih	38	xxxxxxxxxxxxxxxxxx
Roadway Direction	34	xxxxxxxxxxxxxxxxx
Number of Lanes	33	xxxxxxxxxxxxxxxx
Route Type	33	xxxxxxxxxxxxxxxx
Number of Roadways	32	xxxxxxxxxxxxxxxx
Visibility Obstruction	32	xxxxxxxxxxxxxxxx
F-A-System	32	xxxxxxxxxxxxxxxx
Route-Description	32	xxxxxxxxxxxxxxxx
Intersection-At-Grade	32	xxxxxxxxxxxxxxxx
Maximum Speed Limit	30	xxxxxxxxxxxxxxx
Grade	28	xxxxxxxxxxxxxx
Horizontal Alignment	26	xxxxxxxxxxxxx
RR Crossing Identification	26	xxxxxxxxxxxxx
Traffic Control Condition	24	xxxxxxxxxxxx
Bridge Rail	20	xxxxxxxxxx
Bridge Identification	19	xxxxxxxxxx
Pavement Markings	17	xxxxxxxx
Shoulder Width Left	13	xxxxxx
Shoulder Width Right	13	xxxxxx
Shoulder Type Left	13	xxxxxx
Shoulder Type Right	13	xxxxxx
Sidewalk-Bikeway Left	6	xxx
Sidewalk-Bikeway Right	6	xxx
Traffic Signs Support	6	xxx

- 18 vehicle data elements were considered significant. No State had all the elements collected and automated. The number of missing data elements ranged from 1 to 14. Twenty-seven (52 percent) of the States were missing 7 or more of the vehicle data elements.

VEHICLE DATA ELEMENTS

ELEMENT	NUMBER OF STATES	PERCENT OF STATES 0 25 50 75 100
Vehicle Number	48	xxxxxxxxxxxxxxxxxxxxxxxxxx
Vehicle Maneuver	46	xxxxxxxxxxxxxxxxxxxxxxxxx
Vehicle Defects Observed	45	xxxxxxxxxxxxxxxxxxxxxxxx
Registration State	43	xxxxxxxxxxxxxxxxxxxxxx
Vehicle Body Type	43	xxxxxxxxxxxxxxxxxxxxxx
Direction of Travel	43	xxxxxxxxxxxxxxxxxxxxxx
Vehicle Body Type-Commercial	38	xxxxxxxxxxxxxxxxxxx
Model Year	37	xxxxxxxxxxxxxxxxxxx
Vehicle Make	33	xxxxxxxxxxxxxxxxx
Vehicle Damage Severity	33	xxxxxxxxxxxxxxxxx
Trailer Type	31	xxxxxxxxxxxxxxxx
Cause Of Maneuver	28	xxxxxxxxxxxxxxx
VIN	24	xxxxxxxxxxxx
Vehicle Model	23	xxxxxxxxxxxx
Travel Speed	21	xxxxxxxxxxx
Fire Involvement	20	xxxxxxxxxx
Vehicle Removal (Towaway)	20	xxxxxxxxxx
Vehicle Weight	10	xxxxxx

- 14 driver data elements were considered significant. No State had all the elements collected and automated. The number of missing data elements ranged from 1 to 12. One-half of the States (26) were missing 5 or more of the driver data elements.

DRIVER DATA ELEMENTS

ELEMENT	NUMBER OF STATES	PERCENT OF STATES 0 25 50 75 100
Age Driver	52	xxxxxxxxxxxxxxxxxxxxxxxxxxxx
Sex Driver	52	xxxxxxxxxxxxxxxxxxxxxxxxxxxx
Injury Class Driver	50	xxxxxxxxxxxxxxxxxxxxxxxxxxx
Driver Number	48	xxxxxxxxxxxxxxxxxxxxxxxxxx
Safety Equipment Use Driver	41	xxxxxxxxxxxxxxxxxxxxx
Ejection Driver	40	xxxxxxxxxxxxxxxxxxxx
Violation Driver	38	xxxxxxxxxxxxxxxxxxx
License State Driver	38	xxxxxxxxxxxxxxxxxxx
BAC-Test-Type Driver	24	xxxxxxxxxxxx
BAC-Test-Results Driver	23	xxxxxxxxxxxx
Restrictions Driver	22	xxxxxxxxxxx
License Status Driver	18	xxxxxxxxx
Compl With Restr Driver	15	xxxxxxx
Injury Area Driver	12	xxxxxx

- 9 occupant data elements were considered significant. Nine States (17 percent) have all the elements collected and automated. The number of missing data elements in the remaining States ranged from 1 to 8. About one-half of the States (27) were missing 2 or more of the occupant data elements.

OCCUPANT DATA ELEMENTS

ELEMENT	NUMBER OF STATES	PERCENT OF STATES 0 25 50 75 100
Injury Class Occupant	49	xxxxxxxxxxxxxxxxxxxxxxxxxx
Age Occupant	47	xxxxxxxxxxxxxxxxxxxxxxxxx
Sex Occupant	47	xxxxxxxxxxxxxxxxxxxxxxxxx
Occupant Vehicle Number	43	xxxxxxxxxxxxxxxxxxxxxx
Occupant Number	42	xxxxxxxxxxxxxxxxxxxxx
Safety Equipment Use Occupant	39	xxxxxxxxxxxxxxxxxxx
Ejection Occupant	38	xxxxxxxxxxxxxxxxxxx
Seat Position	37	xxxxxxxxxxxxxxxxxxx
Injury Area Occupant	15	xxxxxxxx

- 12 non-occupant data elements were considered significant. Two States had all the elements collected and automated. The number of missing data elements in the remaining States ranged from 1 to 10. Over one-half of the States (29) were missing 4 or more of the 12 non-occupant data elements.

NON-OCCUPANT DATA ELEMENTS

ELEMENT	NUMBER OF STATES	PERCENT OF STATES 0 25 50 75 100
Non-Occupant Type	50	xxxxxxxxxxxxxxxxxxxxxxxxx
Injury Class Non-Occupant	49	xxxxxxxxxxxxxxxxxxxxxxxxx
Age Non-Occupant	49	xxxxxxxxxxxxxxxxxxxxxxxxx
Sex Non-Occupant	48	xxxxxxxxxxxxxxxxxxxxxxxxx
Non-Occupant Action	44	xxxxxxxxxxxxxxxxxxxxxxx
Non-Occupant Number	42	xxxxxxxxxxxxxxxxxxxxx
Non-Occupant Location	35	xxxxxxxxxxxxxxxxxx
Violation Non-Occupant	29	xxxxxxxxxxxxxx
BAC-Test-Type Non-Occupant	20	xxxxxxxxxx
BAC-Test-Results Non-Occupant	18	xxxxxxxxx
Injury Area Non-Occupant	17	xxxxxxxx
Non-Occupant Visibility	16	xxxxxxxx

- A total of 112 data elements were considered significant by the ADIP Task Force. No State has all the elements collected and automated. The number of missing significant data elements ranged from 13 to 65. Over one-half of the States (28) were missing 34 (30 percent) or more of the data elements considered significant. The data elements pertaining to the roadway were most incomplete with those listed in the vehicle, driver and non-occupant categories following in descending order. The table below shows the relative percentages of significant elements collected and automated for each of the categories.

AVAILABILITY OF SIGNIFICANT DATA ELEMENTS

ELEMENTS BY CATEGORY	NUMBER OF ELEMENTS	NUMBER OF STATES: 100 percent of Elements Available	75 percent of Elements Available	50 percent of Elements Available
Accident	27	2	34	52
Occupant	9	9	36	46
Non-Occupant	12	2	23	46
Driver	14	0	16	46
Vehicle	18	0	15	40
Roadway	32	1	9	33
TOTAL SIGNIFICANT	112	0	16	47

- The percent of States with data elements available in the accident file to provide linkage (correlation capability) between the automated accident file and the following automated files are:

  (a) Driver history, 62 percent (the response was not stated or unknown in 7 States).

  (b) Roadway inventory, 60 percent (the response was not stated or unknown in 6 States).

  (c) Vehicle registration/titling, 46 percent (the response was not stated or unknown in 7 States).

  (d) Citation, 19 percent (the response was not stated or unknown in 8 States).

  (e) EMS (Emergency Medical Services), 4 percent (the response was not stated or unknown in 7 States.)

- Software is available to accomplish linkage between the accident file and at least one of the above files in 44 percent of the States (23). In 8 States the answer was not stated or unclear.

Conclusion:

The data elements and file linkage available for accident analysis varies significantly among the States. The number of significant and automated data elements collected ranged from 42 to 88 percent. About one-half of the States were missing nearly one-third of the elements. Software was available to accomplish linkage between the accident file and at least one of the other traffic records system files in only about one-half of the States.

ACCURACY OF REPORTING

Reliable accident analysis for highway safety management purposes is dependent upon factually accurate accident data. Consequently the system used to collect the data should include the necessary checks and safeguards to reduce human error. Both State and local officers prepare motor vehicle traffic accident reports in most States.

- A manual review or edit of the State officer's report is made in most States at both the field level (98 percent) and at the headquarters level (94 percent). It is manually checked for accuracies and inconsistencies in all but 1 State.

- A manual review or edit of the local officer's report is believed made in all States upon receipt at local headquarters. It is manually checked for accuracies and inconsistencies in 92 percent of the applicable States. Two States have no local reporting agencies.

- Feedback is routinely provided by the State central accident records repository to the State reporting agency in 43 percent of the applicable States (22). One State has no State reporting agency.

- Feedback is routinely provided by the State to the local reporting agency in 32 percent of the applicable States (16). Two States have no local reporting agencies.

- There is a value check or valid code check made on all reports by the computer in 94 percent of the States (49). A two dimensional check was provided by the computer in 75 percent of the States (39).

- The estimated overall error rate from the computer checks was not stated or unknown in 29 percent of the States (15). Of the 37 States that reported, there was a range of 0.1 to 40 percent; 38 percent reported it was 2 percent or less, 65 percent reported 5 percent or less, 19 percent reported more than 10 percent were in error.

Conclusion:

Most States reasonably strive for accurate reporting; however, routine feedback needed to improve accuracy is missing in the majority of the States. Both State and local police officer reports are checked manually and by computer for accuracy and consistency in most States. Feedback is routinely provided to the

State reporting agency in less than one-half of the States and to the local reporting agency in one-third of the States.

ACCIDENT INVESTIGATION TRAINING

Accurate, comprehensive accident reporting is dependent upon the professional judgement and/or experience of the officer investigating the accident. Consequently a program of continued training is necessary to assure all investigators develop the skills necessary for accurate reporting.

- Accident investigation is included in recruit training for the State police in all States (1 not applicable). The number of hours provided ranged from 3 to 120. Of 51 States reporting, 10 percent provide less than 20 hours, 25 percent provide 20 to 40 hours, 31 percent provide between 42 and 60 hours, 16 percent provide between 66 and 80 hours, 14 percent provide between 86 and 120 hours, 4 percent provide variable hours of training. Slightly less than half, (49 percent) meet the minimum 52 hours recommended by the International Association of Chiefs of Police (IACP).

- Refresher or in-service training is provided to State police in 88 percent of the applicable States.

- Specific training for local police is required in 36 States. In two it was not stated; in 2 others it was not applicable. This ranges from 7 to 80 hours with 64 percent of the 36 States requiring 20 hours or less. However, accident investigation training is provided local police in 47 States; 3 reported unknown or the response was not clear. Of the 47 States, the reported time ranged from 3 to 80 hours with 43 percent reporting 20 hours or less, 38 percent reporting between 23 and 40 hours, and the remaining States (19 percent) reporting over 40 hours. Only 6 States provide the 52 hours recommended by the IACP.

Conclusion:

Adequate accident investigation training is not provided for State and local officers in most States if compared to the 52 hour minimum recommended by the International Association of Chiefs of Police. About one-half of the States provide the recommended minimum to State officers and only six States (12 percent) provide the recommended minimum to local police officers.

USER SUPPORT

In order to be useful for all highway safety managers, local as well as State, all accident data information should be merged and available from one source and reports should be routinely furnished to appropriate local agencies.

- User access is provided through a central point in 77 percent of the States (40). In 4 States the response was not stated or unknown.

- Reports are produced for local units of government in essentially all States. One was not stated and 2 are not applicable.

Thirty-six States produce these reports routinely. Forty-eight reported that reports are provided local units of government upon their request. The response was not clear from 2 States.

Conclusion:

User access is provided through a central point in most States; however, additional effort needs to be expended by some States to establish procedures to supply reports routinely to local units of government. All States respond to requests for accident data from local units of government; however, about one-third of the States do not supply this information routinely.

RECOMMENDATIONS RESULTING FROM THE ADIP STUDIES

The purpose of the accident data improvement plan was to determine what, if any, accident data deficiencies existed in the individual State maintained accident data systems and make recommendations for individual State improvement in the content and quality of the accident data.

- As a result of the ADIP study, recommendations for improvements were made in the following areas which affect data content and quality for the 52 States:

  (a) File Content, 98 percent of the States (51)

  (b) Accident Investigation Training, 90 percent of the States (47)

  (c) Accuracy, 77 percent of the States (40)

  (d) Reporting 65 percent of the States (34)

  (e) Uniformity, 52 percent of the States (27)

  (f) Linkage, 44 percent of the States (23)

  (g) Other, 40 percent of the States (21)

  (h) Output, 38 percent of the States (20)

Conclusion:

The ADIP study was successful in providing a national overview of the status of the State's accident records systems, and most important, in generating individual State recommendations and actions for improvement of the quality and content of accident data.

RELATED PROGRAM ACTIONS TO IMPROVE TRAFFIC RECORDS SYSTEMS

FHWA PROGRAM ACTIVITIES

Improvement of the State's accident records system is just one area of activity which falls under FHWA Standard No. 9 Identification and Surveillance of Accident Locations. Typical activities include developing reference systems for recording accident locations; improving the quality and quantity of data; improving methods to retrieve and utilize crash data; developing analytical techniques such as automated collision diagraming for safety planning and programming purposes; and conducting special studies to identify unsafe highway hardware, traffic control devices, physical features and hazardous locations. During Fiscal Years 1980 and 1981, $2.4 million was obligated each year for accident records system improvement. For evaluation purposes FHWA generally records obligations for improvement to the traffic records systems in three categories as shown in the table below:

OBLIGATIONS FOR TRAFFIC RECORDS SYSTEMS IMPROVEMENT

	Reference System	Accident Records	Data Inventories
FY 1980	$2,515,000	$2,417,000	$6,058,000
FY 1981	1,630,000	2,370,000	7,246,000

Although most of the funds are obligated for essential data gathering activities, a substantial amount is continually provided to upgrade the existing accident records capabilities.

As part of FHWA's routine management of the highway program, a group of work objectives is selected annually for special emphasis. Fiscal Year 1981 Program Emphasis Area II-4 has a sub-objective of improving the linkage of accident data with traffic and highway inventory data. The FHWA Divisions reported as of March 31, 1981:

- 40 States (77 percent) reported some of their accident reports are linked by computer to traffic data. The percent of reports computer linked varied from 2 to 100 percent; 10 States reported 100 percent linked, 21 States (about one-half of those with computer linkage) reported 60 percent or more linked. Nationally using 1978 accident data as a base, about 44 percent of the fatal and non-fatal injury accident reports are linked by computer to the traffic data file.

- 37 States (71 percent) reported some of their accident reports are linked by computer to the highway inventory file. The percent of reports computer linked varied from 2 to 100 percent; 9 States reported 100 percent linked, 19 States (about one-half of those with computer linkage) reported 60 percent or more linked. Nationally using 1978 accident data as a base, about 45 percent of the fatal and non-fatal injury accident reports are linked by computer to the highway inventory file.

With continued emphasis on improvement of the linkage of the accident records file and the roadway files, FHWA expects the

States to be better able to perform accident analysis and highway safety improvement evaluations. Consequently they will be better able to select and prioritize cost effective safety improvements.

NHTSA PROGRAM ACTIVITIES

The ADIP findings reinforce the present need for a uniformly reported fatal accident data base, such as the Fatal Accident Reporting System (FARS). This system, operated and maintained by NHTSA, applies the ANSI D16 standard in the classification of "First Harmful Event" and Injury-Severity" accidents. FARS also combines information typically contained in several different files within each State to form a composite of information concerning each fatal accident for analysis purposes.

State response to the recommendations for accident data improvement has been mixed. Since completion of the surveys, each State's progress has been monitored. Plans for Federally funded traffic records projects have been reviewed, individual meetings with State and Regional Office officials have been held, and active traffic records projects have been examined to gauge the general direction of States' implementation of improvement activities.

The total amount of Section 402 funds under agreement for traffic record projects in FY 1981 is $9,660,419. The portion of that amount being used to implement ADIP recommendations is unknown. Some of the project descriptions make direct reference to ADIP, but most of them are unrelated and are not directed to the implementation of any ADIP recommendations.

NHTSA traffic records specialists recently completed a regional office follow-up review of States' progress. The findings point out the wide difference among the States in the rate of progress towards implementation of recommended changes in their records systems. Some of the States have recently made extensive changes (revised the accident report form, reprogrammed computer software) and are unwilling to invest more money so soon. A few have rejected the recommendations on the grounds that they benefit only the Federal government. Many, however, have taken positive action. This has taken the form of revised report forms to add missing data, establishment of task forces and committees to initiate, coordinate and oversee improvement activities, and expansion of accident investigation training courses. A summary of State actions follows.

- 14 States have revised, or are in the process of revising their accident report forms to collect additional data as recommended;
- 6 States have formed committees or study teams to develop a plan for implementing the recommendations in the ADIP report;
- 5 States have revised and upgraded their accident investigation training programs;
- 5 States have made plans for software changes to the accident records system to accommodate additional data;

- 6 States have initiated other types of improvements ranging from acquiring additional data through the narrative section of the accident report to developing completely new systems; and

- 24 States have not taken any action to date.

NATIONAL OBJECTIVES, OR WHERE DO WE GO FROM HERE?

Accident data is collected and maintained by the States for their own purposes. Although federal assistance has been provided for much of the development of the systems, the resources provided to maintain the system are substantially provided by the States. Consequently, the character of the individual State system rightfully remains the prerogative of the individual State.

Highway safety managers do recognize, however, that many highway safety problems have national significance. Consistent reporting within States enhances the opportunity to express accurately the magnitude and characteristics of the specific problem. Every State will benefit with reasonably uniform data available to accurately assess how critical these problems are, and how they should be addressed. In addition, efforts will be enhanced to combine State data in national data programs such as FARS and to sample these State data in the National Accident Sampling System.

As a result of the findings of the ADIP study the following national objectives are offered for the consideration of the States.

ADIP CONCLUSION	NATIONAL OBJECTIVE
Accident data is not collected uniformly within all States. o Most States require the use of a uniform accident report form by regulation. o All jurisdictions in about one-third of the States do not use a uniform form.	Improve the implementation of the State requirements for using a statewide uniform accident report form.
Accident reporting is incomplete. o All jurisdictions submit reports in about one-half of the States. o All accidents are reported in about one-third of the States. o All personal injury accidents are reported in about one-half of the States.	Continue to work for complete reporting of those accidents required to be reported so that an accurate assessment of safety problems can be made.

ADIP CONCLUSION	NATIONAL OBJECTIVE
Most accident data is available for analysis within two months. o Most reports are submitted within 30 days and entered into the system within 60 days.	Continue to maintain the accident files reasonably current.
Reporting criteria are non uniform among the States. o The time period for attributing a death to a motor vehicle accident varies. o ANSI D-16 definitions for accident and injury severity classification are used in most States, but not all States. o The threshold for property damage accident reports varies. o Reporting and use of nontraffic accident and motorist's reports varies.	Through national committees continue to develop and implement nationally uniform reporting criteria such as: o Fatality counting rule. o State adoption of ANSI D-16 classifications for accident and injury definitions. o Development and adoption of a uniform criteria for reporting property damage accidents; i.e., towaway for example. o Consistent use of nontraffic accident reports when reporting data for national purposes.
Data elements and file linkage vary among States. o The percent of significant elements collected and automated ranged from 42 to 88 percent. o Over one-half of the States are missing nearly one-third of the elements. o Linkage between the accident file and any other file is available in only one-half the States.	Continue to improve the consistency, quantity and quality of accident data elements available for analysis by: o Adoption of ANSI D-20 content and definition. o Improving linkage between the traffic record files.

ADIP CONCLUSION	NATIONAL OBJECTIVE
Most States review accident reports for accuracy and consistency; however, routine feedback is often missing. o Feedback is provided to less than one-half of the State agencies and only one-third of the local agencies.	Assure checks for accuracy and feedback to State and local reporting officers are implemented as routine procedures in the State's system.
Adequate accident investigation training is not provided for State and local officers in most States if compared to the minimum recommended by the IACP. o The State police in only one-half of the States, and the local police in only 12% of the States receive the minimum.	Development of a national standard for the amount of training required for accident investigation for States to use as guidance.
All States respond to requests for accident data from local units of government; however, not all States supply information routinely. o One-third of the States do not supply information routinely.	Determine the accident information needs of the local units of government and establish procedures to supply information and data routinely.
The ADIP study was successful in generating individual State recommendations for improvement.	Continue to implement the recommendations for improvement as defined in each State's ADIP report.

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EXHIBIT I

D-20 DATA COMPARISON LIST

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STATES FILE			
D-20 DATA ELEMENT	MANUAL	AUTOMATED	REMARKS
CASE-NUMBER*			
ACCIDENT-YEAR*			
ACCIDENT-MONTH*			
ACCIDENT-DAY*			
HOUR*			
MINUTE			
DAY-OF-WEEK*			
COUNTY*			
CITY-PLACE*			
POPULATION			
WEATHER*			
LIGHT*			
ACCIDENT-SEVERITY*			
HARMFUL-EVENT*			
HAZARDOUS-FIXTURE-OR-OBSTR.			
HARMFUL-EVENT-LOCATION*			
PROPERTY-DAMAGE-VALUE			
RECORD SOURCE			
INVESTIGATING-AGENCY*			
LOCATION-OF-INVESTIGATION			
OFFICER-IDENT.			
TIME-POLICE-NOTIFIED*			
TIME-POLICE-ARRIVED*			
TIME-POLICE-CLEARANCE			
TIME-EMERG-NOTIFIED*			
TIME-EMERG-ARRIVED*			

*Significant Data Elements

STATES FILE			
D-20 DATA ELEMENT	MANUAL	AUTOMATED	REMARKS
EMERG-RESP-ELAPS-TIME			
ACCIDENT-SITE-CARE			
ACCIDENT-CAUSE			
CONTRIBUTING-CIRCUM-DRIVER*			
CONTRIBUTING-CIRCUM-ENVIRON*			
CONTRIBUTING-CIRCUM-NON-OCC*			
CONTRIBUTING-CIRCUM-OCC*			
CONTRIBUTING-CIRCUM-ROAD*			
CONTRIBUTING-CIRCUM-VEH*			
NUMBER-OF-VEHICLES			
TOTAL-ACCIDENT-FATALITIES*			
TOTAL-ACCIDENT-INJURIES*			
NUMBER-OF-NON-OCC*			
LOCALE			
ROAD-ID*			
F-A-SYSTEM*			
FUNCTIONAL-CLASS			
URBAN-RURAL*			
ROUTE-TYPE*			
ROAD-NUMBER*			
MILEPOINT*			
ROADWAY-DIRECTION*			
ROUTE-DESCRIPTION*			
NUMBER-OF-ROADWAYS*			
NUMBER-OF-LANES*			
SURFACE-TYPE*			

D-20 DATA ELEMENT	STATES FILE MANUAL	STATES FILE AUTOMATED	REMARKS
SURFACE-CONDITION*			
ROAD-DEFECTS*			
VISIBILITY-OBSTRUCTION*			
MAXIMUM-SPEED-LIMIT*			
TRAFFIC-CONT-DEV-TYPE*			
TRAFFIC-CONT-CONDITION*			
HORIZONTAL-ALIGNMENT*			
GRADE*			
LIGHTING*			
BRIDGE-IDENT*			
BRIDGE-RAIL*			
RR-CROSSING-IDENT*			
INTERSECTION-AT-GRADE*			
PAVEMENT-MARKINGS*			
SIDEWALK-BIKEWAY-LEFT*			
SIDEWALK-BIKEWAY-RIGHT*			
SHOULDER-TYPE-LEFT*			
SHOULDER-TYPE-RIGHT*			
SHOULDER-WIDTH-LEFT*			
SHOULDER-WIDTH-RIGHT*			
TRAFFIC-SIGNS-SUPPORT*			
VEHICLE-NUMBER*			
REGIS-STATE*			
MODEL-YEAR*			
VEHICLE-MAKE* (NHTSA)			
VEHICLE-MODEL* (NHTSA)			
VEHICLE-BODY-TYPE*			

STATES FILE			
D-20 DATA ELEMENT	MANUAL	AUTOMATED	REMARKS
VEHICLE-BODY-TYPE-COMM.*			
MOTORCYCLE-ENG-DISP			
VIN* (NHTSA)			
VEHICLE-USAGE			
ODOMETER-READING			
TRAILER-TYPE*			
DIRECTION-OF-TRAVEL*			
TRAVEL-SPEED*			
COLLISION-SPEED			
VEHICLE-MANEUVER*			
CAUSE-OF-MANEUVER*			
POINT-OF-IMPACT			
DIR-OF-EXTERNAL-FORCE			
DAMAGE-LOCATION			
VEHICLE-DAMAGE-SEVERITY*			
FIRE-INVOLVEMENT* (NHTSA)			
FINAL-LOC-OF-VEHICLE			
VEHICLE-REMOVAL* (NHTSA) (TOWAWAY)			
VEHICLE-DEFECTS-OBSERVED*			
SEAT-BELT-PRESENCE			
TOTAL-VEHICLE-OCCUPANTS			
VEH-FATALITIES			
VEH-INJURIES			
CURRENT-INSP-STICK-NO.			
VEHICLE-WEIGHT*			
DRIVER-NUMBER*			30

D-20 DATA ELEMENT	STATES FILE MANUAL	STATES FILE AUTOMATED	REMARKS
SAFETY-EQUIPMENT-USE-DRIVER*			
EJECTION-DRIVER*			
INJURY-CLASS-DRIVER*			
INJURY-AREA-DRIVER*			
PHYSICAL-COMPLAINT-DRIVER			
NUMBER-OF-INJURIES-DRIVER			
VICTIM-STATUS-DRIVER			
CAUSE-OF-INJURY-DRIVER			
VICTIM-TRANSPORT-DRIVER			
ACC-SITE-CARE-DRIVER			
AGE-DRIVER*			
SEX-DRIVER*			
RACE-DRIVER			
BAC-TEST-DATE-TIME-DRIVER			
BAC-TEST-TYPE-DRIVER*			
BAC-TEST-RESULTS-DRIVER*			
VIOLATION-DRIVER*			
LICENSE-STATE-DRIVER*			
LICENSE-CLASS-DRIVER			
LICENSE-STATUS-DRIVER*			
LICENSE-TYPE-DRIVER			
COMPLIANCE-WITH-TYPE-DRIVER			
RESTRICTIONS-DRIVER*			
COMPL-WITH-RESTR-DRIVER*			
OCCUPANT-NUMBER*			
OCC-VEHICLE-NUMBER*			
SEAT-POSITION*			

STATES FILE			
D-20 DATA ELEMENT	MANUAL	AUTOMATED	REMARKS
SAFETY-EQUIP-USE-OCC * (NHTSA)			
EJECTION-OCCUPANT *			
INJURY-CLASS-OCCUPANT *			
INJURY-AREA-OCCUPANT *			
PHYSICAL-COMPLAINT-OCC			
NUMBER-OF-INJURIES-OCC			
VICTIM-STATUS-OCCUPANT			
CAUSE-OF-INJURY-OCC			
VICTIM-TRANSPORT-OCC			
ACC-SITE-CARE-OCC			
AGE-OCCUPANT *			
SEX-OCCUPANT *			
RACE-OCCUPANT			
NON-OCCUPANT-NUMBER *			
NON-OCCUPANT-TYPE *			
INJURY-CLASS-NON-OCC *			
INJURY-AREA-NON-OCC *			
PHYSICAL-COMP-NON-OCC			
NUMBER-OF-INJURIES-NON-OCC			
VICTIM-STATUS-NON-OCC			
CAUSE-OF-INJURY-NON-OCC			
VICTIM-TRANSPORT-NON-OCC			
ACC-SITE-CARE-NON-OCC			
AGE-NON-OCCUPANT *			
SEX-NON-OCCUPANT *			
RACE-NON-OCCUPANT			
BAC-TEST-DATE-TIME-NON-OCC			
BAC-TEST-TYPE-NON-OCC *			

D-20 DATA ELEMENT	STATES FILE MANUAL	STATES FILE AUTOMATED	REMARKS
BAC-TEST-RESULTS-NON-OCC*			
VIOLATION-NON-OCC*			
NON-OCC-LOCATION*			
NON-OCC-ACTION*			
NON-OCC-VISIBILITY*			

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EXHIBIT II

REVIEW CRITERIA

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ACCIDENT DATA IMPROVEMENT PLAN
ACCIDENT RECORDS SYSTEMS REVIEW CRITERIA

I. Uniformity

II. Reporting

III. Completeness/Data Content

IV. Accuracy

V. Accident Investigation Training

VI. Output

VII. Linkage with Other Files

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ACCIDENT DATA IMPROVEMENT PLAN
ACCIDENT RECORDS SYSTEMS REVIEW CRITERIA

I. Uniformity

1. Does the State have a statutory requirement for a uniform report form? _____

2. Is it used uniformly by all enforcement agencies? _____
If not explain why and estimate percent of accidents represented by those not using it.

3. Does the law fix agency responsibility in obtaining statewide use? _____ If so name the agency _____.
Does the law specify a penalty for noncompliance? _____

4. What fatality definition is used? (e.g., 30 days, 12 months, etc.)

II. Reporting

1. What percentage of local police jurisdictions do not report? _____
What percentage of accidents does this represent? _____
Do these jurisdictions report all fatals and personal injury? _____
Reasons for non-reporting:

2. What is range of elapsed times for reporting, State _____, Local _____. What are the general reasons for reporting delays?

3. What is average elapsed time from accident occurrence to entry on automated file? _____

4. Is towaway used as a reporting criterion? _____. If not, what criterion is used? _____. Do all jurisdictions follow this? _____ If not, list jurisdictions and criteria not in conformance.

5. Use of motorist reports? _____ Percentage of automated file represented by these reports? _____

6. Validation of fatalities (What procedures are used to insure that all fatalities are reported?) Procedures for reporting of delayed fatalities?

7. Are non-traffic (e.g., parking lot) accidents included in system? _____ If yes, how many annually? _____

III. Completeness/Data Content

1. Critical elements for NHTSA (see Attachment C of December 15 memo to Regional Administrators). Discuss each data element and alternative methods for either incorporating into records system or making available to NHTSA on request.

2. D-20 Data Element List. Discuss problems, questions, deficiencies, noted during comparative analysis of State content versus D-20 List.

III. Completeness/Data Content (cont'd.)

3. D-16 comparison. Discuss problems and questions noted during comparison of the D-20 Data Element List with State's content.

4. Item analysis. Discuss any problems, questions or deficiencies noted during analysis of State's univariate listing (where available) and/or FARS Quality Control Report.

IV. Accuracy

State Central Accident Records Repository

1. Manual edits/controls

a. Is a review or edit of officer's report made at field level of State Police? Also upon receipt at Headquarters Office? _____ What blocks, if incomplete, cause the report to be returned to Officer?

b. Is a check made for accuracy or inconsistencies? _____

c. What elements most often omitted? (Inaccurate?) For example, do the police often omit completing the "Contributing Causes" element (if on report form)?

d. Is feedback routinely provided to the Reporting Agency on accuracy? _____

IV. Accuracy (cont'd.)

Local Police

1. Manual edits/controls

   a. What review or edit is made upon the receipt of the officers report? _____ What blocks, if incomplete, cause the report to be returned to officer?

   b. Is a check made for accuracy or inconsistencies? _____

   c. What elements most often omitted? (Inaccurate?) For example, do the police often omit completing the "Contributing Causes" element (if on report form)?

IV. Accuracy (cont'd.)

2. Computer edits

a. Is there a range of value check or a valid code check? _____ What if blank? What if fail edit? _____ For example, if a data element has only 3 possible codes (0, 1, 2), does the edit reject all others?

b. Is a two-dimensional check provided? _____ For example, if "Time of Day" is 11 p.m., is "Light Condition" checked as "Dark"? _____

c. What is the overall error rate? _____

d. What elements are most often blank?

e. What elements are most often in error?

f. How are errors corrected?

g. Request coding instructions (if not obtained previously).

V. Accident Investigation Training

1. State Police

a. Is accident investigation included in recruit training? _____
How many hours? _____

b. Is "on-the-road" training included? _____

c. Is "in-service" training given? _____
If so how often? _____
How many hours? _____

d. What mechanism is provided for feedback of results of edit checks, for use as guidance for:
(1) The reporting officer? _____
(2) Special training emphasis? _____
(3) Recruit/refresher training? _____

e. Describe edit checking procedures afforded each accident report (hard copy).

f. List sources of training.

V. Accident Investigation Training (cont'd.)

2. Local Police

a. Is there a statutory requirement for minimum training? _____

b. Is so, is accident investigation specified? _____ How many hours? _____

c. Is refresher training specified? _____ How many hours? _____

d. How often is refresher training required? _____

e. No. of hours actually trained?
(1) Recruit? _____
(2) Refresher? _____

f. What mechanism is provided for feedback of results of edit checks for use as guidance for:
(1) The reporting officer? _____
(2) Special training emphasis? _____
(3) Recruit/refresher training? _____

g. Describe edit checking procedures afforded each accident report (hard copy).

h. List sources of training.

VI. Output

1. Reports

a. List scheduled reports provided and to whom distributed

Report	Distributed to

VI. Output (cont'd.)

b. Is user access provided thru a central point?

c. Do any users have interactive (on-line) access to automated file? _____ If so, list users and explain how used.

d. Are reports produced for locals? _____ Routinely _____ or upon request? _____

2. HSP data

a. HSP Planners assessment of data provided (current output, existing quality, and additional needs).

b. HSP Planners suggestions for obtaining needed data improvements.

VII. Linkage with Other Files

1. What data element(s) in the accident file provides linkage (correlation capability) between the automated accident file and the following automated files?

File	Linkage element(s)
Driver History	
Vehicle Registration/Titling	
Roadway Inventory	
Citation (where file exists)	
EMS (where file exists)	

2. Does the State have software to accomplish linkage? Have any reports been produced resulting from correlation of accident data with data from other files? If so, describe examples.